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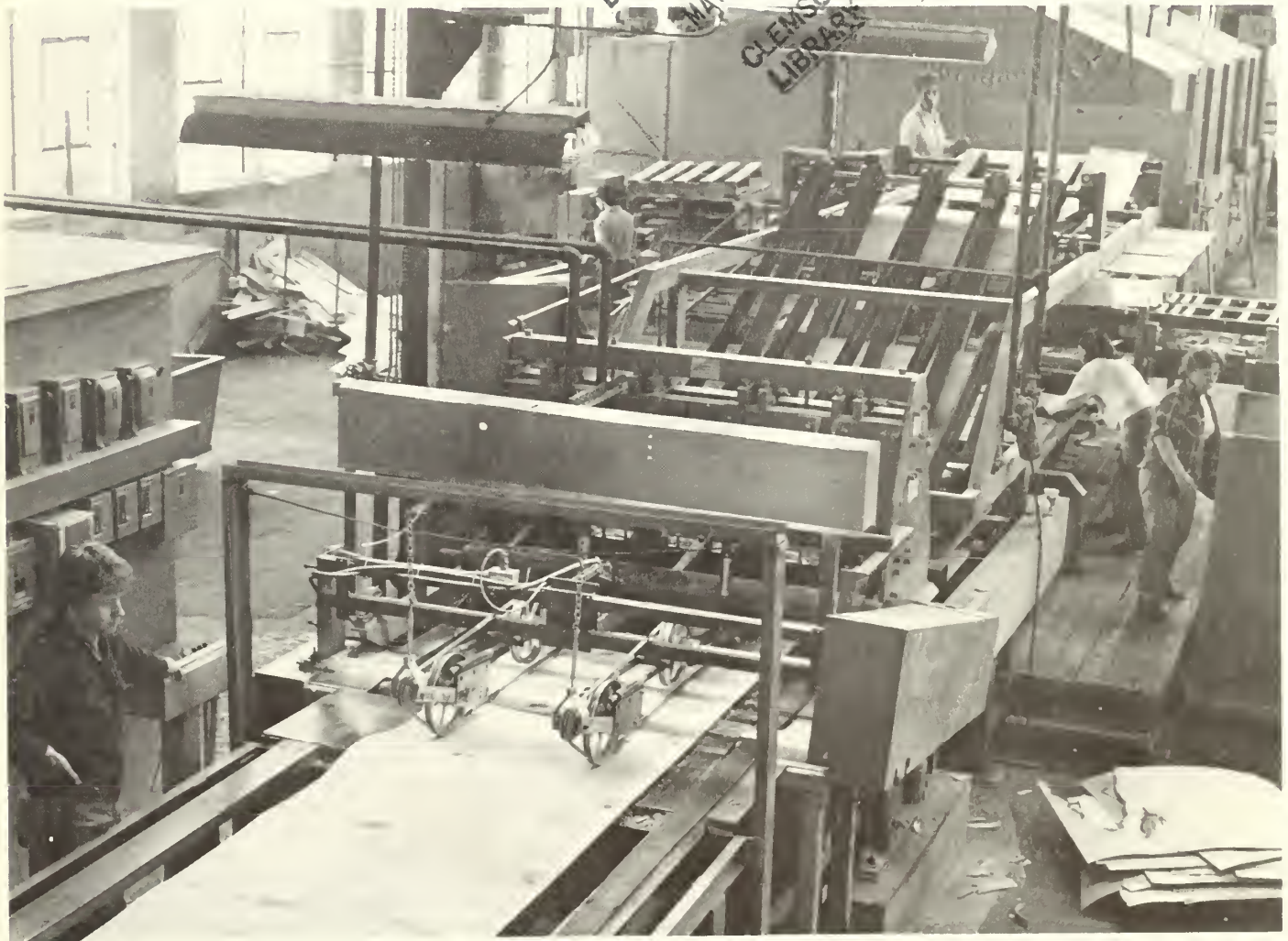
# Veneer, 1980

## —A Periodic Assessment of Regional Timber Output

Robert L. Nevel, Jr.

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## Abstract

This periodic evaluation of regional timber output based upon a survey of the veneer plants in the Northeast contains 1980 statistics on veneer-log production and receipts by states and species, log shipments between states and regions, and the production and disposition of the residues generated in the manufacture of veneer. The 156.8 million board feet (684,600 m<sup>3</sup>) of veneer logs produced in 1980 represented a 19 percent increase in production since 1976 when the last survey was made. The 120.5 million board feet (525,400 m<sup>3</sup>) of veneer logs received at northeastern mills was 2 percent lower in 1980 than in 1976. Trends in production and an outlook for the industry are also presented along with a list of veneer plants in the Northeast.

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## Cover Photo

New technologies help the northeastern veneer industry to use more of the local resource, to reduce labor costs, and to make competitive products in the face of lower log quality and higher log prices. The Rutland Plywood Corporation plant in Rutland, Vermont, uses a Morvue computer scanner with its veneer clipper to make all grades and types of hardwood plywood and veneer. The scanner shown in the foreground precisely locates defects in the veneer and relays defect information to computerized controls that monitor the clipper. The system makes fast, precise clipping with less manpower; helps maximize veneer yield; and promotes the use of lower quality logs from all northern hardwood species. (Courtesy of Rutland Plywood Corp., Rutland, Vt.)

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## Highlights

The 1980 veneer industry survey in the Northeast showed that since 1976:

- Veneer log production rose 19 percent to 157 million board feet (684,600 m<sup>3</sup>).<sup>1</sup>
- Veneer log receipts at northeastern veneer mills dropped 2 percent to 120 million board feet (525,400 m<sup>3</sup>).
- There were five fewer plants operating in the Northeast.
- The Northeast continued to grow as a net exporter of veneer logs, exporting more than 36 million board feet (158,300 m<sup>3</sup>) more logs than it received from outside the region.

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<sup>1</sup>Based on recent timber and utilization surveys conducted by the USDA Forest Service in the Northeast, 1,000 board feet (International 1/4-inch rule) equals 4.36 m<sup>3</sup>.

## Background

The U.S. Department of Agriculture, Forest Service, conducts forest and forest-products industry surveys to provide current information on the timber and related resources of the Nation. Periodically in the Northeast, production and consumption of a single timber product is surveyed to determine the product's importance in relation to the entire timber-products industry in the region. The manufacture of veneer ranks third in the region, as measured by annual receipts of industrial timber products, such as sawlogs, pulpwood, veneer logs, and other roundwood. The most recent assessment of the veneer industry was in 1976. More recent evaluations of the timber-products industry conducted along with reappraisals of the entire timber resource of various states indicate change has been occurring within the veneer industry.

Recently, the Northeastern Forest Experiment Station contacted all operating veneer plants in the Northeastern states (Connecticut, Delaware, Kentucky, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, and West Virginia) for 1980 plant receipts (see list of plants page 16). This survey was coordinated with a similar survey in the North Central region.

Information on wood receipts was exchanged with neighboring experiment stations to assure complete coverage by the Northeastern Station. Veneer mills within the region and possible out-of-state consumers of Northeastern veneer logs were mailed questionnaires. After three mailings, nonresponding plants were contacted by telephone by the Station's personnel. Veneer log shipments to and from Canada were similarly determined. Veneer logs harvested and exported overseas through log brokers or concentrators are difficult to trace accurately and were not included in the survey.

Information and analysis of veneer log use and the veneer industry are provided on a continuing basis. Members of the veneer, veneer log, and timber industries and those in association with these industries will find the material useful in their evaluations of state and regional timber and log supply, harvest, and use, especially for hardwoods. About one-sixth of the Nation's veneer hardwood logs are harvested and used in the Northeast as compared to less than 2 percent of all veneer logs and less than 1 percent of the softwoods.

This report deals mainly with statistics for 1980, the calendar year

of the latest veneer-industry survey, and 1976, the calendar year of the last canvass. Reference is made to statistics of the earlier surveys in 1963, 1968, 1972, and 1976 where appropriate for comparison.

Long-term trends will be disclosed by repeated surveys in the future. Additional related information may be available for individual states for intervening years from reports of the Station's statewide forest-products industry surveys.

## Veneer Industry Profile

Three broad classes of veneer manufacturers in the Northeast based on the industries they serve and the products they make are: (1) commercial and face veneer plants producing veneer for the plywood and furniture industries; (2) container veneer manufacturers fabricating boxes, baskets, and similar containers, mostly for shipping produce; and (3) specialty veneer mills producing hundreds of miscellaneous items, such as beverage stirrers, business cards, spoons, tongue depressors, and toothpicks.

In 1980, 36 active veneer plants were scattered throughout 10 of the northeastern states. The mills were concentrated most heavily in New England—mostly in south-central Maine and in Vermont. The mills were located near veneer-log sources or product markets, or adequate transportation and favorable labor—considerations that determine the type and location of a plant. Proximity of log sources, inexpensive labor, and product markets are more important to container plants than to manufacturers of commercial and face veneer. The manufacture of this veneer is more exacting in its requirements, and the 20 manufacturers are willing to pay more to get the logs and to make and distribute their products. Most of the five container plants buy and sell locally in agricultural areas. The 11 specialty veneer plants are located near the required species and major transportation.

**Some characteristics of the three classes of veneer plants in the Northeast in 1980 were:**

Characteristics	Class of veneer plant		
	Commercial and face	Container	Specialty
Volume of log receipts	4.2 million board feet per plant	0.4 million board feet per plant	3.2 million board feet per plant
Major species received	Red and white oaks, yellow birch, and yellow pine	Beech, white birch, and soft maple	White birch and hard maple
Size of log procurement area	From 3- to 16-state area	From consuming or neighboring state	From 3- to 5-state area
Plant location	Evenly scattered throughout Northeast	Atlantic Coastal Plain or bordering Great Lakes	Mostly Maine
Product market areas	Eastern population and Southeastern furniture industry	Local agricultural areas	Nationwide

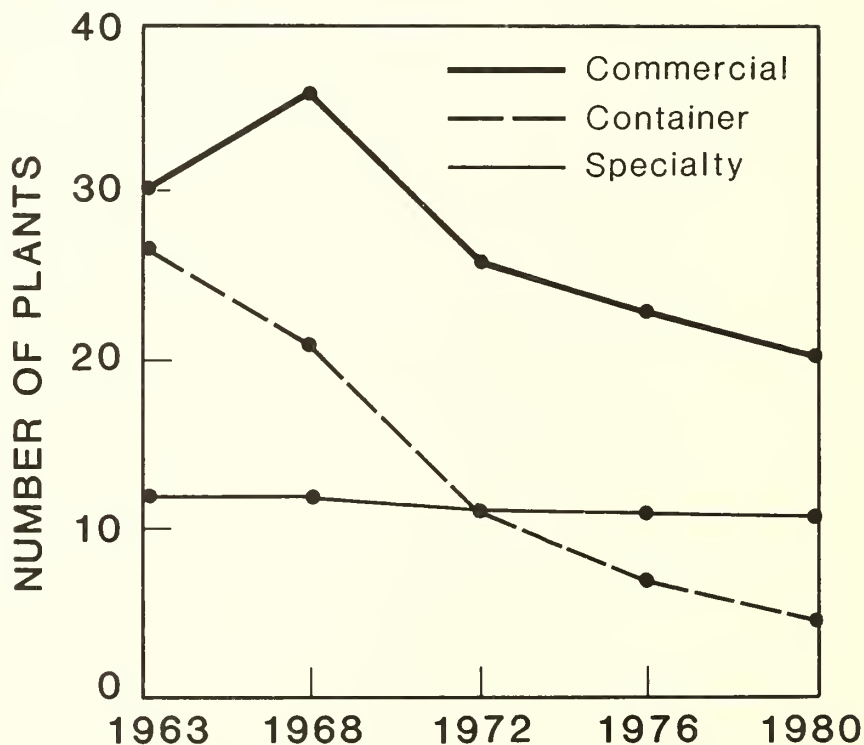
There were 33 fewer active veneer plants in the Northeast in 1980 than there were in 1963 (Fig. 1). Two-thirds of the drop resulted from the closure of container plants; the balance of the decline was due primarily to closings of commercial veneer plants. The number of specialty veneer plants has remained relatively constant throughout the period.

There were 41 active veneer mills in the Northeast during the previous 1976 industry survey. Since then, the total number of active plants dropped to 36. Seven veneer plants had closed including five commercial mills, one specialty mill, and one container mill; and two commercial mills opened.<sup>2</sup>

#### The Container Veneer Industry

In 1963, nearly 30 container veneer plants were scattered from Ohio to Vermont. After 17 years less than one-fifth as many were located only in Ohio and Pennsylvania. Sixteen plants had closed between 1963 and 1972; four more closed by 1976; and another closed by 1980.<sup>2</sup>

Figure 1.—Number of veneer plants operating in the Northeast, by class of plant, for selected years.



<sup>2</sup>The closing of the specialty and container mills is not readily obvious from the numbers in figure 1. One mill formerly classified as a container mill was considered to be a specialty mill in the 1980 survey due to the unique products it manufactures.

Over the years, declining use of wooden containers and a lack of skilled labor forced the closing of most container veneer plants. Demand has dropped with the replacement of family farms by agribusinesses and the increased cost of wooden containers. Large-scale agribusinesses use automated harvesting and transporting equipment and corrugated shipping containers. The high cost of labor and material to produce wooden containers has made them uneconomical for use by fruit and vegetable producers. And, roadside produce retailers prefer to use paper bags and plastic goods to minimize packaging costs. The assembly of wooden containers is labor intensive, requiring highly skilled workers who are difficult to replace.

### **The Commercial Veneer Industry**

The number of active commercial veneer plants rose in the mid-1960's along with plywood consumption in the United States. There were 36 such plants in the Northeast in 1968. The number of plants then dropped throughout the 1970's despite relative stable consumption, and in 1980 there were only 20 plants.

The closing of the plants was related to activity surrounding the hardwood plywood market. From 1960 to 1968, the importation of hardwood plywood increased slightly every year to meet increasing demand with little or no detriment to domestic shipments. From 1968 to 1980, domestic con-

sumption of hardwood plywood averaged 5.6 billion square feet per year,<sup>3</sup> but increased foreign dominance of the hardwood plywood market continued to take its toll on domestic shipments and the commercial veneer industry in the Northeast. According to the Forest Products Review and the U.S. Bureau of the Census, U.S. consumption and importation of hardwood plywood more than quadrupled between 1960 and 1972, but domestic shipments only more than doubled. By 1972, when domestic demand for hardwood plywood peaked at 8.1 billion square feet, imported hardwood made up over three-fourths of the annual consumption, and the number of northeastern mills dropped to 26. The penetration and continued dominance of the United States hardwood plywood market by foreign manufacturers brought about the closing of many domestic plants and the relocation of manufacturing facilities overseas. By 1980, as a result of the recent long-term worldwide economic slowdown, domestic hardwood plywood consumption dropped to less than 3½ billion square feet, and three less commercial veneer plants were in the Northeast.

The importation of hardwood plywood dropped much more than domestic consumption. Both declined because of the drop in housing and construction requirements, the rise in hardwood plywood prices, and the

increased use of hardboard, particleboard, and medium-density fiberboard, and other laminated products. In 1980, when consumption was slightly over 40 percent of the record high 1972 level, demand for domestic hardwood plywood had dropped less than 40 percent, while demand for similar imported products dropped 63 percent.

If the economy improves over the next few years, it seems that the status of the commercial veneer industry in the Northeast will also improve, but not significantly. The industry will still be facing increasing costs and competition from manufacturers of alternative products.

### **The Specialty Veneer Industry**

The specialty veneer mills provide stability to the wood-using industry because the species they use and the products they make seldom change. These mills, which have remained nearly constant since 1963, make up 31 percent of all the veneer mills in the Northeast. In 1980, 7 of the 11 specialty veneer mills were located in central and southern Maine; the rest were located within 400 miles of these in New Hampshire, Vermont, and New York. For the most part, white birch and hard maple are used to make such items as toothpicks, ice cream spoons, tongue depressors, stirrers, and the like. One specialty mill used a variety of species to make parts for a manufacturer of large industrial reels.

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<sup>3</sup>One square foot equals .00929 m<sup>2</sup>.

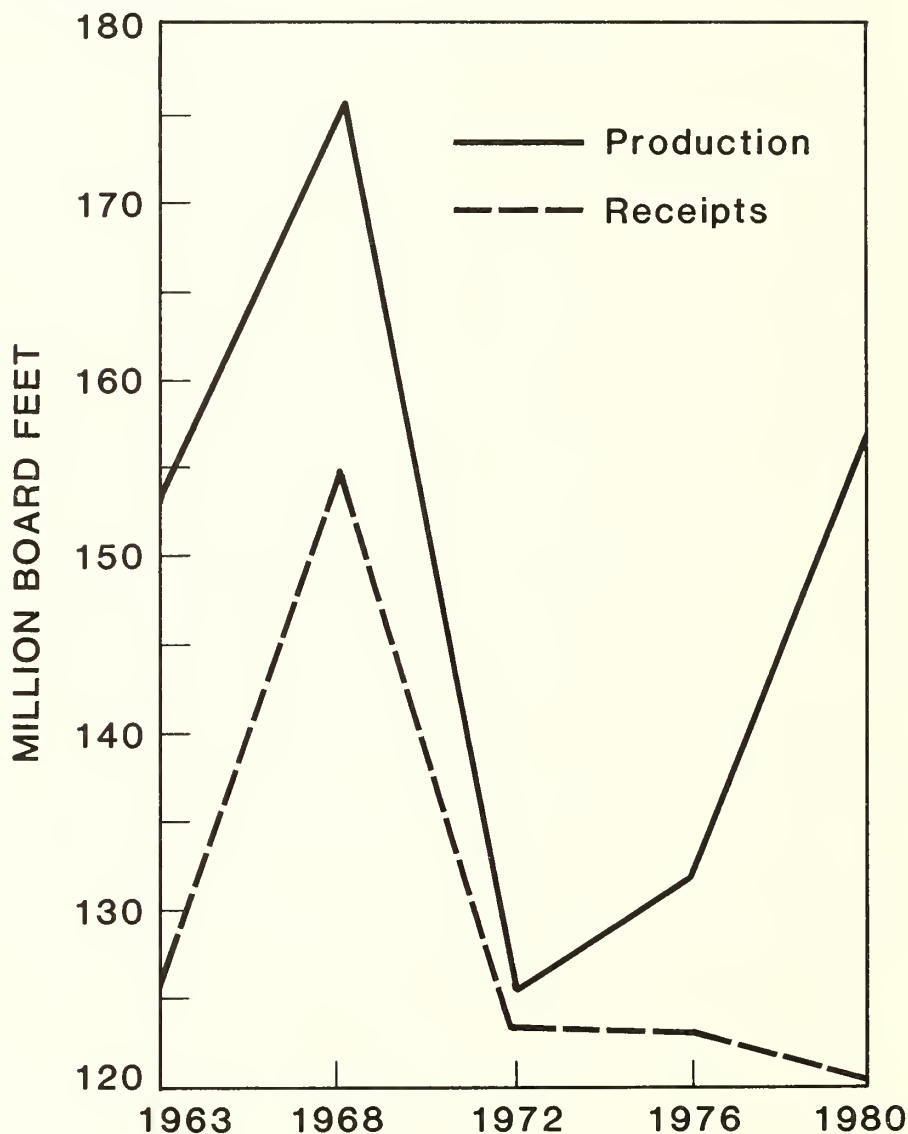
## The Veneer Log Harvest Continued to Rise—Plant Receipts Dropped Slightly

### The Harvest Jumped 19 Percent

The volume of veneer logs cut in the Northeast in 1980 was nearly 157 million board feet—a jump of 19 percent since 1976 and over 25 percent since the recent low of 123 million board feet in 1972 (Fig. 2). The harvest was higher since 1976 in 11 of the 13 states where veneer logs were cut. Historically, veneer logs have never been produced in Rhode Island. Individual gains for the states ranged from less than 1 percent in Ohio to over 100 percent in Connecticut and West Virginia. The percentage of production decreased very slightly in Maine and significantly in New Jersey, which produced only 300,000 board feet in 1980. Maine, Maryland, New York, and Pennsylvania continued to report the largest individual harvests. Each of these states produced at least 20 million board feet of veneer logs in 1980. Their harvests totaled 112.8 million board feet for 72 percent of the veneer logs produced in the Northeast (Fig. 3).

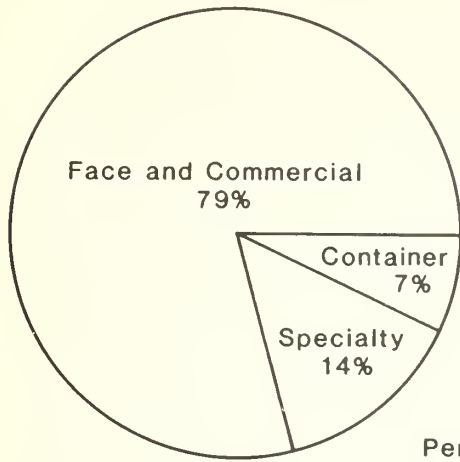
During the last 18 years, most of the veneer log production in the Northeast has gone to producers of commercial and face veneer (Fig. 4). Nearly 80 percent—124 million board feet—of the region's veneer logs went to these plants in 1980 (Figs. 3 and 4). The volume of logs cut for these plants was up 55 percent over 1976 when 80 million board feet, or 60 percent, of the total northeastern veneer log harvest went to these mills. In 1980, about 22 million board feet, or 14 percent, of the total harvest went to specialty veneer mills; and half as much went to container producers.

Figure 2.—Veneer log production and receipts in the Northeast for selected years.

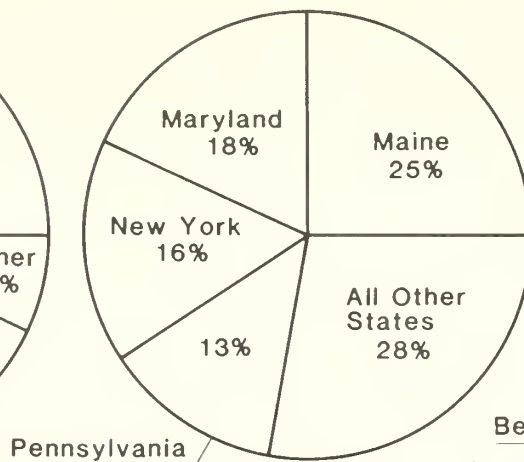




### BY PRODUCT



### BY STATE



### BY SPECIES

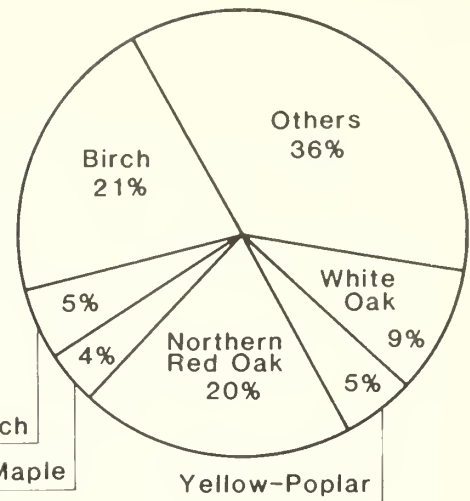


Figure 3.—Veneer log production in percent, 1980.

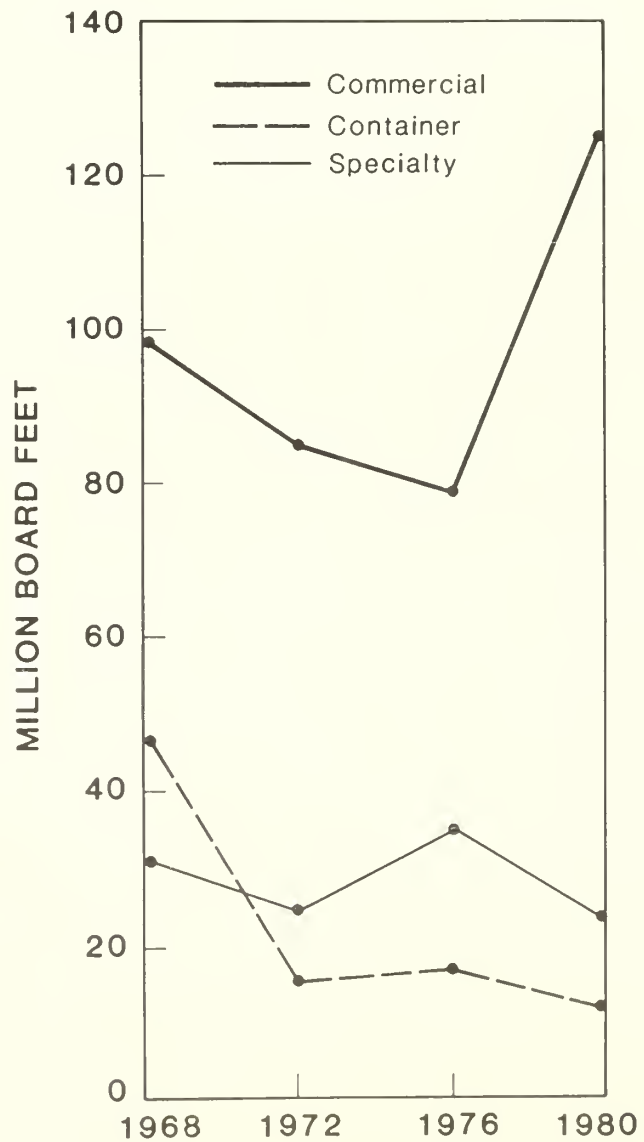


Figure 4.—Production of veneer logs in the Northeast, by class of plant, for selected years.

## Harvest Characteristics

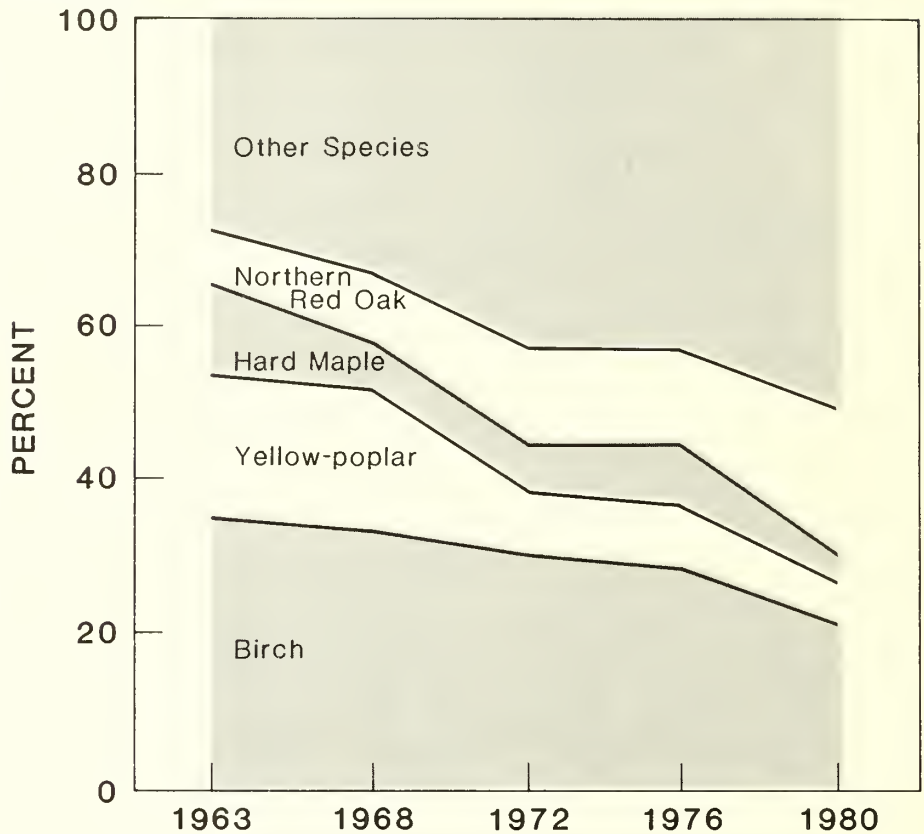
Between 1976 and 1980, the harvest of veneer logs for the commercial and specialty mills differed from the previous 8 years. From 1968 through 1976, veneer log production for the commercial and face veneer mills decreased. Since 1976, the harvest for these mills rose. Most of this rise resulted from increased shipments from Maine and New York to Canadian firms near the international border. By 1976, log production for the specialty veneer mills had risen to a high for the period; it fell to a new low by 1980.

Additionally, the production of veneer logs to container mills continued to drop over the 12-year period since 1968. Drops in the harvests for logs for both the container and the specialty veneer mills were over 34 percent between 1976 and 1980. These drops represent a significant decrease in demand for both container and specialty veneer, resulting from decreased demand for products from northeastern-based mills and the loss of some markets to substitute products.

About 40 million board feet of veneer logs continue to be harvested annually in Maine. In 1980, this volume made up one-fourth of the production total for the Northeast (Fig. 3). Over half (21.7 million board feet) of the state's volume went to make commercial veneer and the rest was used by specialty veneer mills. The 18.2 million board feet that went to specialty veneer plants comprised 82 percent of the harvest for these mills.

The logs that went to commercial mills were mostly spruce and fir, while those that went to specialty mills were mostly white birch. With all of its harvest going to commercial and face veneer mills, Maryland remained the second largest producer of veneer logs in 1980. Maryland produced 18 percent (28.3 million board feet) of the region's total harvest, 53 percent of which was from

Figure 5.—Species mix of veneer log production in the Northeast for selected years.



softwood—mostly southern pines. The rest consisted mostly of northern red oaks and white oaks, yellow-poplar, and white ash.

In 1980, birch barely remained the northeastern species harvested most to make veneer. Based on volume harvested, it continues to lose its position to red oak (Fig. 5).

Total production for the four species—birch, yellow-poplar, hard maple, and red oak—has declined over the years as use has spread over a larger range of species since 1963. In 1963, these four species accounted for 72 percent of the 153 million board feet that was cut in the Northeast.

In 1980, they accounted for only half of the 157 million board feet produced.

Red oak has become the most popular species for face veneer, while lessening demand for specialty products has resulted in reduced harvests of birch. The proportion of veneer made from hard maple and yellow-poplar has also decreased over the last 17 years. The use of hard maple has given way to other species, such as beech and white oak, which are less competitive with the solid wood products industry. Demand for yellow-poplar veneer logs dropped with the decreased production of wooden containers.

#### Photo caption

All species of northern hardwood veneer logs are used throughout the Northeast to produce all types and grades of hardwood plywood. (Courtesy of Rutland Plywood Corp., Rutland, Vermont)



#### Interregional and Interstate Shipments

In 1980, the preferred hardwood species were birch, red oak, white oak, beech, hard maple, and yellow-poplar, accounting for 64 percent of the harvest in the Northeast (Fig. 3). Softwoods made up nearly 60 percent of the balance and nearly one-fourth of the total production. Most of the softwood production was from Maryland's southern pine and Maine's spruce forests.

Ash, basswood, and elm registered production gains of 100 percent or more between 1976 and 1980. The largest volume gains were shown in red and white oak, which accounted for 29 percent of the harvest. Production for each of these two species nearly doubled, nearly reaching 32 million board feet for red oak and 14 million board feet for white oak. The largest declines in harvest occurred with beech, birch, hard maple, and yellow-poplar. The softwood veneer

log harvest rose 82 percent in the last 4 years to nearly 40 million board feet.

#### Mill Receipts Dropped 2 Percent

Veneer plants in the Northeast received 120.5 million board feet of veneer logs in 1980. This was about 2½ million board feet, or about 2 percent, less than the amount received in 1976 and 1972. Veneer log receipts rose in only three states—Maryland, Ohio, and West Virginia. West Virginia registered the largest gain—increasing fivefold, or nearly 20 million board feet—to account for one-fifth of the region's total receipts. Over half of the logs, mostly hardwood, received by the state's three face veneer mills came from other states in the region; and about one-fifth came from within the state. Four of the other 11 northeastern states had no operating veneer plants.

The movement of veneer logs within, into, and out of the Northeast depends on the type and location of the plants receiving the logs. Most veneer logs going to container and specialty mills are harvested nearby. In 1980, most of the logs used by Maine's specialty veneer producers were cut in the state. Often, in other states, where commercial or face veneer is made, veneer log exports and imports are high. Many of the logs used to make the veneer are shipped great distances; little of the veneer log harvest may go to the local commercial or face veneer plants. These mills need a supply of quality logs of particular species not always available within the state where the veneer is made. Hard maple and yellow birch logs from Vermont may be harvested for plants in West Virginia, which may also receive gum and yellow-poplar from Maryland and ash and black cherry from Pennsylvania.



## Nearly All Manufacturing Residues Used

Since 1963, regional exports have exceeded imports—more veneer logs have gone out of the Northeast than have been shipped into it for conversion. This surplus decreased from 1963 until 1976. Net exports dropped from 26 million board feet in 1963 to 21 million board feet in 1968. The surplus of outshipments nearly reached equilibrium at 1.7 million board feet in 1972 when demand for veneer logs was high. Then, in 1976, during a weak market for hardwood logs, extraregional shipments exceeded imports by 9 million board feet. By 1980, exports exceeded imports by more than 36 million board feet for a surplus of 23 percent. Most of the export surplus since 1976 came from increased shipments of softwood veneer logs out of the region, particularly from Maine to Canada. Among the Northeastern States with operating mills, Maine, New York, Ohio, and Pennsylvania exported greater volumes of veneer logs than they imported in 1980.

More than twice as many veneer logs were shipped out of the Northeast in 1980 as in 1976. Nearly 59 million board feet, or 37 percent, of the 1980 production was shipped outside the region—an increase of 16 percent over 1976 when 28 million board feet were exported. Most of this increase was due to the softwood log requirement of the new structural plywood plant constructed in New Brunswick in 1976.

In 1980, 98.1 million board feet, or 81 percent, of the veneer logs received by mills in the Northeast came from states within the region. Seventenths of the mill receipts were harvested in the state where the mills were located. Nearly 89 million board feet, or 57 percent, of the veneer logs harvested in the region were shipped out of the state in which they were cut. One-third of the out-of-state shipments remained within the region.

Wood manufacturing residues from veneer plants, such as bark, clippings, and cores, have increased in value and utility in recent years. The veneer mills, pulpmills, and other industrial facilities in the Northeast have been using these and other wood residues as dependable and readily available sources of raw material for pulp and energy. Environmental concerns have discouraged wood-product manufacturers from burning or dumping their residues, and have encouraged the plants to use or market this material.

The veneer mills in the Northeast generated about 10.5 million cubic feet of manufacturing residues in 1980. Almost 5 million cubic feet were in the form of coarse woody material large enough to be made into wood chips; more than 3 million cubic feet were fine woody material too small for chipping; and more than 2 million cubic feet were bark.

Both the use of veneer manufacturing residues and the use of these residues for industrial fuel have increased tremendously in recent years. Nearly all of the residues were used in 1980 (Fig. 6). Most of these residues were used by the veneer plants for boiler fuel. More than one-third of the coarse wood residues and one-tenth of the fine wood residues were used to make pulp and other fiber products. Two percent or less of each type residue went unused. Most of the unused material was burned, piled, or buried.

## The Industry Outlook Is Mixed

Analyses of the current national economic slowdown and recent and projected trends for the housing and wood panel industries indicate both difficulty and improvement for the industries. Primarily as a result of its association with the housing and panel industries, much of the northeastern veneer industry can be expected to continue experiencing difficulties over the next 5 years with improvement likely by the end of the 1980's. Some segments of the veneer industry should do better than others. Not only the greatest difficulty but also the most improvement should be seen in the face and commercial veneer segment which relies heavily upon the economy, housing, and technology.

As predicted 5 years ago (Bones and Dickson 1978), the container veneer segment of the veneer industry in the Northeast has not improved. Both the number of mills and the volume of logs used to make container veneer decreased. Both can be expected to continue to shrink as long-term demand for wood containers is expected to decline. Some container veneer plants should continue to operate beyond the 1980's to satisfy markets for novelty and specialty baskets. However, this highly labor-intensive segment will continue to be faced with replacing skilled labor, rising labor and material costs, and increased competition from substitute products.



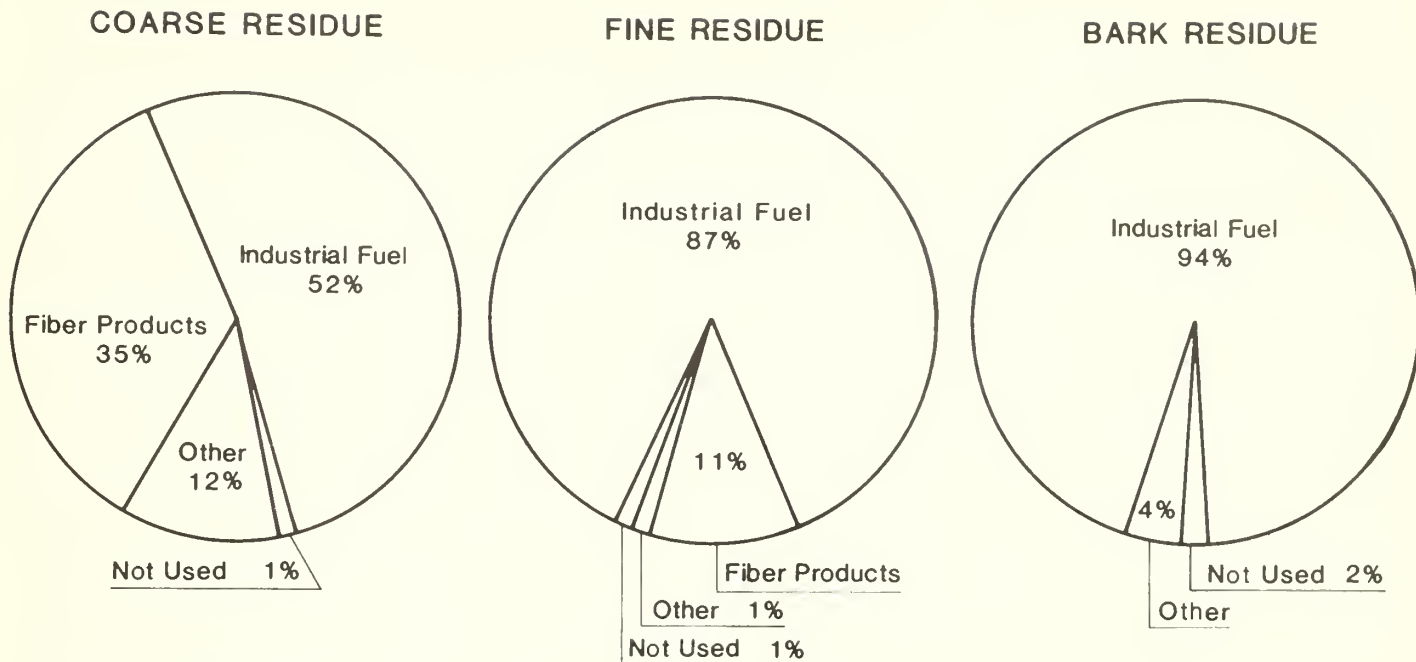


Figure 6.—Disposition of veneer plant residues in percent, 1980.

The volume of logs used to make specialty veneer has decreased in recent years, but the number of producers of specialty veneer products has remained constant. Although this segment has not done as well as expected over the last several years, stability is expected. The northeastern manufacturers of these unique and superior products have nationwide distribution, a wide range of market and product alternatives, and proximity to adequate wood supply. Also, no new major competition or additional loss of markets is expected. Markets and consumer preference for these products should remain steady, and potential competitors will continue to be reluctant to enter this nongrowth area.

I believe the face and commercial veneer segment of the northeastern veneer industry will face the greatest difficulty over the next few years; and the segment will have the greatest impact on the veneer industry in the Northeast. Improvements in this segment will depend much on an economic upturn, additional markets, innovative marketing efforts, an improved housing market, improved technology, the ability to compete with substitute and foreign products, and improved export markets. Although it is unlikely that certain parts of the face and commercial veneer segment will return to previous levels by the end of the 1980's, any improvement in this segment will have a significant effect on Northeastern

veneer log production and consumption. The commercial and face veneer industry in the Northeast currently use over 3 times as many veneer logs as the specialty veneer segment, over 7 times as many as the container veneer segment, and about one-seventh of the nation's hardwood veneer logs.

The health of the face and commercial veneer segment depends mostly on the general health of the economy and the housing market. A good housing market is required for strong or increased demand for plywood and veneer, especially hardwood. Historically, the housing market comprises about half of the plywood market. Prolonged high inflation and

high interest rates brought about record-low housing starts, and high costs and reduced product demand to the commercial veneer industry. Housing starts have dropped steadily from over 2 million in 1978 to 1.1 million in 1981. It is estimated that housing starts for 1982 will be at least as low as the record low of 1,050,000 in 1946. U.S. shipments of domestically produced hardwood plywood have similarly dropped from nearly 1.4 billion square feet in 1978 to 1.1 in 1981 (U.S. Bureau of the Census 1978-81).

Until the nation's economy and the housing market improve significantly, the northeastern commercial veneer industry will continue to find some relief in the continued relative strength of markets other than new housing. These markets, including home repair and remodeling, nonresidential and industrial construction, and exports to other countries, have remained fairly stable throughout the recession. Plywood manufacturers and associations have been succeeding in joint efforts in these markets. Exports of hardwood plywood have risen from 33 million square feet in 1979 to 55 million square feet in 1981, while imports dropped by half from 4 billion square feet for the same period (U.S. Bureau of the Census 1980 and 1982). Plywood demand dropped 12 percent in 1981, while

demand for new housing dropped 35 percent (Lewis 1982). Even if fewer and smaller single-family houses are built in the future, the houses and multi-family dwellings will require hardwood plywood products such as paneling, doors, cabinets, and flooring, which use most of the Northeast's veneer output.

New technologies must continue to be developed in the commercial and face veneer industry to use more of the local resource, to reduce labor costs, and to make more competitive products in the face of lower log quality and higher log prices. To augment both quantity and quality in production, work has been aimed at the handling of small logs, automation and computerizing equipment, and varying veneer thickness.

One major advance in technology has been the use of a paper face or vinyl laminate on a hardwood plywood substrate to simulate clear veneers. The use of the laminates has opened additional market areas; prompted the use of lower quality hardwoods for interior paneling; permitted more use of domestic species such as walnut, pecan, and cherry for quality paneling; and provided competition for laminated hardboard and other substrates while maintaining the inherent quality and other advantages

of hardwood plywood. While annual shipments of prefinished hardwood plywood generally have decreased during the last decade, the proportion of lauan or similar species printed and embossed or laminated with a vinyl or paper overlay increased to 78 percent. Since 1972, only about 22 percent of the plywood made from domestic and the more expensive foreign hardwoods has had a natural finish. In 1980, 20 percent of the prefinished hardwood plywood had a vinyl laminate or paper face (McDonald 1982). In 1976, this percentage was about 15 percent; and in 1972 it was only 6 percent; and for 1981 it rose to 27 percent.<sup>4</sup>

On the negative side, hauling veneer-quality logs greater distances and rising transportation costs continue to increase their cost. Additionally, the manufacture of structural composite panel products from low-cost hardwood resources will have to be reckoned with. These products are likely to gain more of the hardwood and softwood plywood markets in the Northeast as their acceptance increases. There is currently one manufacturer of these products in the Northeast and several more are planning to resume production soon.

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<sup>4</sup>From data compiled by Clark E. McDonald, President, Hardwood Plywood Manufacturers Association.

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## Definition of Terms

### Species

Softwoods. Coniferous trees, usually evergreen, with needles or scale-like leaves.

Hardwoods. Dicotyledonous trees, usually broad-leaved and deciduous.

### Manufacture

Veneer log or bolt. A roundwood product from which veneer is sliced or sawn that usually meets certain minimum standards of diameter, length, and defect.

Veneer log production. The manufacture of roundwood (round timber) products, such as logs and bolts, generated from harvesting trees for conversion into veneer products.

Veneer log receipts. Roundwood (round timber) products, such as logs and bolts, received by veneer mills for conversion into veneer products.

### Residues

Manufacturing plant residues. Wood materials that are generated when round timber (roundwood) is converted into wood products; includes coarse residues, such as veneer cores, slabs, and edgings suitable for chipping, and fine residues, such as shavings, sawdust, clippings, and other material not suitable for chipping.

**Table 1.—Veneer log production and receipts in the Northeast, 1976 and 1980**

State	Production			Receipts		
	1976	1980	Change	1976	1980	Change
	<i>Million board feet<sup>a</sup></i>		<i>Percent</i>	<i>Million board feet<sup>a</sup></i>		<i>Percent</i>
Connecticut	—	0.7	*	—	—	—
Delaware	4.9	5.4	+10	—	—	—
Kentucky	5.1	6.0	+18	6.6	3.0	-55
Maine	40.3	39.9	-1	39.0	27.0	-31
Maryland	24.8	28.3	+14	25.5	28.6	+12
Massachusetts	.8	1.4	+75	—	—	—
New Hampshire	4.3	4.8	+12	(D)	(D)	(D)
New Jersey	1.0	.3	-70	(D)	(D)	(D)
New York	16.1	24.6	+53	14.4	10.2	-29
Ohio	7.6	7.7	+1	3.7	6.6	+78
Pennsylvania	14.7	20.0	+36	10.7	4.0	-63
Rhode Island	—	—	—	—	—	—
Vermont	8.5	10.2	+20	18.2	16.1	-12
West Virginia	3.6	7.5	*	3.9	23.4	*
All states	131.7	156.8	+19	122.9	120.5	-2

<sup>a</sup>International ¼-inch rule.

\*Greater than 100 percent increase.

(D)Data withheld to avoid disclosure for individual plants.

**Table 2.—Species composition of veneer log harvest in the Northeast, 1976 and 1980**

Species	1976		1980		Change
	<i>Million board feet<sup>a</sup></i>	<i>Percent</i>	<i>Million board feet<sup>a</sup></i>	<i>Percent</i>	<i>Percent</i>
Ash	1.6	1.2	5.6	3.6	( <sup>b</sup> )
Basswood	.3	.2	.6	.4	+100
Beech	11.7	8.9	7.6	4.8	-35
Birch	36.8	27.9	32.7	20.9	-11
Cherry	3.4	2.6	5.9	3.8	+73
Cottonwood	.2	.2	.2	.1	—
Elm	.2	.2	.4	.3	+100
Hickory	2.2	1.7	.8	.5	-64
Maple, hard	11.0	8.3	6.2	4.0	-44
Maple, soft	3.0	2.3	2.0	1.3	-33
Oak, red	16.8	12.7	31.9	20.3	+90
Oak, white	7.1	5.4	13.7	8.7	+93
Sycamore	.5	.4	.5	.3	—
Walnut, black	2.3	1.7	1.6	1.0	-30
Yellow-poplar	10.4	7.9	7.3	4.7	-30
Other hardwoods <sup>c</sup>	3.5	2.7	2.1	1.3	-40
Total hardwoods	111.0	84.3	119.1	76.0	+7
Total softwoods	20.7	15.7	37.7	24.0	+82
All species	131.7	100.0	156.8	100.0	+19

<sup>a</sup>International ¼-inch rule.

<sup>b</sup>More than 100 percent change.

<sup>c</sup>Includes aspen, chestnut, hackberry, pecan, tupelo, and other miscellaneous hardwoods.



**Table 3.—Production of veneer logs in the Northeast,  
by states and receiving plant classes, 1980**  
(Million board feet)<sup>a</sup>

State	Class of receiving veneer plant		
	Commercial and face	Container	Specialty
Connecticut	0.7	—	—
Delaware	5.4	—	—
Kentucky	6.0	—	—
Maine	21.7	—	18.2
Maryland	28.3	—	—
Massachusetts	.6	0.6	.2
New Hampshire	2.3	.2	2.3
New Jersey	*	.3	—
New York	22.6	1.0	1.0
Ohio	6.3	1.4	—
Pennsylvania	19.9	.1	—
Rhode Island	—	—	—
Vermont	2.4	7.4	.4
West Virginia	7.5	—	—
All states	123.7	11.0	22.1

<sup>a</sup>International ¼-inch rule.

\*Less than 100,000 board feet.

**Table 4.—Receipts of veneer logs in the Northeast, by  
states and receiving plant classes, 1980**  
(Million board feet)<sup>a</sup>

State <sup>b</sup>	Class of receiving veneer plant		
	Commercial and face	Container	Specialty
Kentucky	3.0	—	—
Maine	3.1	—	23.9
Maryland	28.6	—	—
New Hampshire	(D)	(D)	(D)
New Jersey	(D)	(D)	(D)
New York	9.0	—	1.2
Ohio	5.0	1.6	—
Pennsylvania	4.0	*	—
Vermont	6.8	9.3	*
West Virginia	23.4	—	—
All states	82.9	11.2	26.4

<sup>a</sup>International ¼-inch rule.

<sup>b</sup>States with no operating veneer plants are omitted.

(D)Data withheld to avoid disclosure for individual plants.

\*Less than 100,000 board feet.

**Table 5.—Production, shipment, and consumption of veneer logs  
for the Northeast, by state, in 1980**

(Million board feet)<sup>a</sup>

State	Cut and retained in state	Out-shipments		Total production	In-shipments		Total receipts (apparent consumption)
		To other states <sup>b</sup>	To other Northeastern states		From other states <sup>b</sup>	From other Northeastern states	
Connecticut	—	0.7	*	0.7	—	—	—
Delaware	—	5.4	5.4	5.4	—	—	—
Kentucky	1.0	5.0	.5	6.0	2.0	0.4	3.0
Maine	20.5	19.4	.1	39.9	6.5	2.4	27.0
Maryland	15.4	12.9	7.9	28.3	13.2	5.8	28.6
Massachusetts	—	1.4	.8	1.4	—	—	—
New Hampshire	(D)	(D)	(D)	4.8	(D)	(D)	(D)
New Jersey	(D)	(D)	(D)	.3	(D)	(D)	(D)
New York	9.6	15.0	3.9	24.6	.6	.5	10.2
Ohio	2.8	4.9	1.0	7.7	3.8	.9	6.6
Pennsylvania	2.8	17.2	6.4	20.0	1.2	1.1	4.0
Rhode Island	—	—	—	—	—	—	—
Vermont	9.7	.5	.5	10.2	6.4	6.2	16.1
West Virginia	4.9	2.6	.1	7.5	18.5	12.8	23.4
All states	68.1	88.7	30.0	156.8	52.4	30.0	120.5

<sup>a</sup>International ¼-inch rule.

<sup>b</sup>Includes shipments to or from Canada and other states outside the region.

(D)Data withheld to avoid disclosure for individual plants.

\* Less than 50,000 board feet.

**Table 6.—Extraregional recipients of veneer logs  
from the Northeast, 1980**

(Million board feet)<sup>a</sup>

State or Province	Volume received
Indiana	7.8
Missouri	*
North Carolina	11.4
New Brunswick, Canada	18.0
Ontario, Canada	7.1
Quebec, Canada	8.9
Tennessee	2.1
Virginia	3.4
All states and provinces	58.7

<sup>a</sup>International ¼-inch rule.

\* Less than 100,000 board feet.

**Table 7.—Disposition of veneer plant residues in the Northeast by states and type of residue and use, 1980**  
(Thousand cubic feet)

Class of residue and type of use	Kentucky	Maine	Maryland	New Hampshire	New Jersey	New York	Ohio	Pennsylvania	Vermont	West Virginia	All states
<b>Coarse<sup>a</sup></b>											
Fiber <sup>b</sup>	27	371	876	—	—	49	—	—	347	—	1,670
Industrial fuel	57	477	395	13	10	233	174	119	374	685	2,537
Domestic fuel	—	27	—	29	—	45	30	14	—	93	238
Other	—	6	301	—	—	3	—	—	38	8	356
Total used	84	881	1,572	42	10	330	204	133	759	786	4,801
Total unused	6	—	—	—	—	39	—	—	—	—	45
<b>Fine<sup>c</sup></b>											
Fiber	—	99	—	—	—	—	—	—	261	—	360
Industrial fuel	32	568	839	32	8	264	154	88	314	575	2,874
Domestic fuel	—	—	—	—	—	—	—	11	—	—	11
Agricultural <sup>d</sup>	22	—	—	—	—	16	—	—	—	—	38
Total used	54	667	839	32	8	280	154	99	575	575	3,283
Total unused	13	—	—	—	—	65	—	—	—	19	97
<b>Bark</b>											
Industrial fuel	19	400	713	19	5	140	63	59	327	314	2,059
Agricultural	13	—	—	—	—	1	24	—	17	42	97
Total used	32	400	713	19	5	141	87	59	344	356	2,156
Total unused	8	—	—	—	—	26	6	—	—	—	40
<b>All residues</b>											
Fiber	27	470	876	—	—	49	—	—	608	—	2,030
Industrial fuel	108	1,445	1,947	64	23	637	391	266*	1,015	1,574	7,470*
Domestic fuel	—	27	—	29	—	45	30	25	—	93	249
All other	35	6	301	—	—	20	24	—	55	50	491
Total used	170	1,948	3,124	93	23	751	445	291	1,678	1,717	10,240
Total unused	27	—	—	—	—	130	6	—	—	19	182

<sup>a</sup>Includes veneer cores and trimmings suitable for chipping.

<sup>b</sup>Includes woodpulp and composite products.

<sup>c</sup>Includes clipping, shavings, and rounding waste unsuitable for chipping.

<sup>d</sup>Includes livestock bedding and farm and horticultural mulch.

\*Includes 6,000 cubic feet for chemical and charcoal use.

## Veneer Plants in the Northeast—1980

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### Kentucky:

1. Central States Veneer Co., Paducah
2. The Freeman Corp., Winchester
3. Wood Mosaic Corp., Louisville

### Maine:

4. Diamond International Corp., Oakland
5. Forster Manufacturing Co., Inc.  
(Plants in E. Wilton and Strong)
6. Hardwood Products Co., Guilford
7. Columbia Plywood Corp., Presque Isle
8. PCI, Brownville
9. Solon Manufacturing Co., Solon
10. Strong Wood Products Inc., Strong

### Maryland:

11. Chesapeake Plywood Corp., Pocomoke City
12. Stenerson Mahogany Corp., Cockeysville

### New Hampshire:

13. Plymouth Manufacturing Co., Plymouth

### New Jersey:

14. Califon Basket Co., Califon

### New York:

- \*15. Koppers Co., Bernhard Bay
16. W. J. Cowee, Berlin
17. Knight and Robbins Veneer Corp., Falconer
18. Riverside Veneer Corp., Heuvelton
- \*19. Tupper Lake Veneer Corp., Tupper Lake

### Ohio:

20. Asplin Basket Co. Inc., Hartville
21. Berlin Fruit Box Co., Berlin Heights
22. Dimension Veneers, Edon
23. Hartzell Industries, Inc., Piqua
24. McIntire Basket Co., Creston
25. Universal Veneer, Newark

### Pennsylvania:

26. Greenfield Basket Co., Northeast
27. Weyerhaeuser Co.  
(Plants in Jefferson and New Freedom)

### Vermont:

28. Bradford Veneer and Panel Co., Bradford
29. Columbia Plywood Corp., Newport
30. Lewis Brothers Inc., West Rupert
31. Rutland Plywood Corp., Rutland

### West Virginia

32. Breece Veneer Co., Kenova
33. The Dean Co., Princeton
34. Erath Veneer Corp., Martinsburg

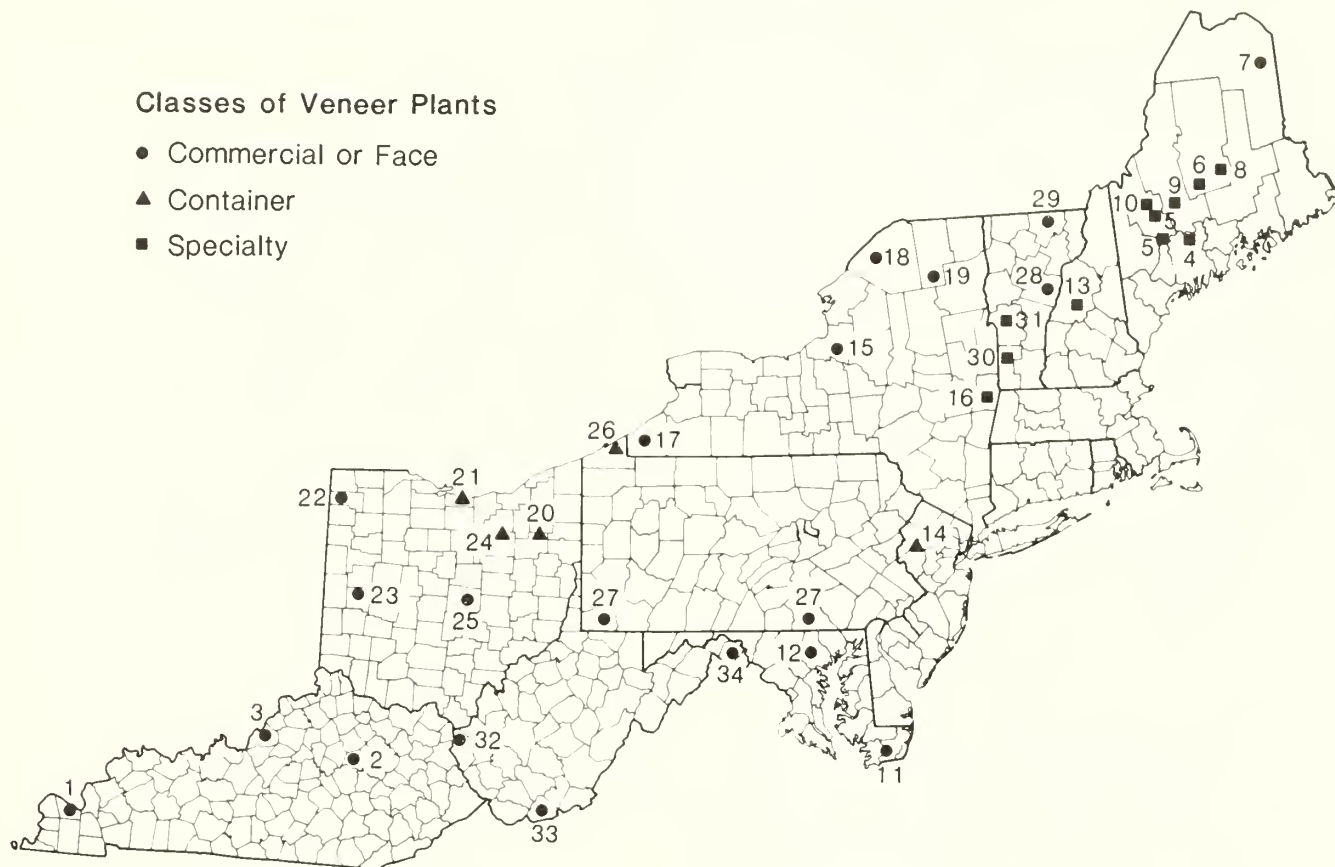
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\*Acquired since 1980 by Rutland Plywood Corporation.



### Classes of Veneer Plants

- Commercial or Face
- ▲ Container
- Specialty





Nevel, Robert L., Jr. **Veneer, 1980—A periodic assessment of regional timber output.** Resour. Bull. NE-77. Broomall, PA: U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station; 1983. 17 p.

Evaluates regional timber output based on a canvass of the veneer plants in the Northeast and contains statistics for 1980 on the veneer-log production and receipts by states and species, log shipments between states and regions, and the disposition of manufacturing residues. Between 1976 and 1980, veneer log production jumped 19 percent and northeastern veneer plant receipts dropped slightly. Trends in production and an outlook for the industry are presented along with a list and map of veneer plants in the Northeast.

792:832.2(74):721.1

**Keywords:** Timber output, veneer logs, Northeast, primary manufacturing residues.

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Headquarters of the Northeastern Forest Experiment Station are in Broomall, Pa. Field laboratories are maintained at:

- Amherst, Massachusetts, in cooperation with the University of Massachusetts.
  - Berea, Kentucky, in cooperation with Berea College.
  - Burlington, Vermont, in cooperation with the University of Vermont.
  - Delaware, Ohio.
  - Durham, New Hampshire, in cooperation with the University of New Hampshire.
  - Hamden, Connecticut, in cooperation with Yale University.
  - Morgantown, West Virginia, in cooperation with West Virginia University, Morgantown.
  - Orono, Maine, in cooperation with the University of Maine, Orono.
  - Parsons, West Virginia.
  - Princeton, West Virginia.
  - Syracuse, New York, in cooperation with the State University of New York College of Environmental Sciences and Forestry at Syracuse University, Syracuse.
  - University Park, Pennsylvania, in cooperation with the Pennsylvania State University.
  - Warren, Pennsylvania.
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